

REMARKS

In the Office Action, claims 1-6, 11, 19, 23,-27, and 29-32 were rejected under 35 U.S.C. § 103(a) as being obvious over the combination of published U.S. patent application Pub. No. 2003/0052971 to Gutta et al. ("Gutta") and of U.S. Patent 4,396,945 to DiMatteo.¹ In addition, claims 7-10, 20-22, 28, and 33-36 were rejected under 35 U.S.C. § 103(a) as being obvious over the combination of Gutta, DiMatteo, and U. S. Patent 7,015,954 to Foote et al.

The rejections should be withdrawn because the claims are not obvious in view of the cited references. In particular, claim 1 is directed to a system that can obtain video of a moving fixation point within a scene using a number of non-moving image capturing devices (e.g., a camera banks having a number fixed cameras or a fixed, wide FOV camera) surrounding the scene. The image capturing devices are in communication with respective image generators; and a surround-view image sequence generator is in communication with the image generators and generates a surround-view video sequence of the fixation point based on the output from certain (some or all) of the image generators.

The system of claim 1 provides many advantages over prior art systems for generating surround-view video sequences. First, these prior art systems use a master-

¹ At paragraph 5, page 2, the Office Action identified Gutta as U.S. Patent 5,956,081, which is a patent issued to Katz et al., not Gutta. In addition, form PTO-892, included with the Office Action, identified Gutta as Pub. No. 2003/0052971. On June 5, 2008, the undersigned attorney of record called Examiner Anyikire to determine if the rejections were based on Gutta (Pub. No. 2003/0052971) or Katz (U.S. Patent 5,956,081). During that call, Examiner Anyikire confirmed that the rejections are based on Gutta (Pub. No. 2003/0052971).

slave pan/tilt-based (i.e., moving) camera system where a human operator is tasked to identify and track a single action of interest. All of the other cameras move to follow that action. Therefore, in the prior art systems, if (i) an action of true interest is occurring somewhere else within the scene, (ii) the operator's tracking is delayed, or (iii) the pan/tilt devices have servoing errors or delay, then the prior art systems will fail to capture video of the action, either totally or partially. The system of claim 1, however, never misses an action of interest within the dynamic scene, even though it uses non-moving camera systems. As such, the system of claim 1 favorably permits capturing all of the images in the scene all of the time.

Second, in system of claim 1, images of multiple fixation points can be generated at simultaneous time points. Third, the image generators in the system of claim 1 need not track the target mechanically, and as such do not suffer from any control delay, offset, or other errors associated with servoing, as is present in the prior art. Therefore, matching the point of rotation among images is improved in comparison with prior art systems. Fourth, with the system of claim 1, the video can be replayed based on time (forward or backward), based on space (clockwise or counter-clockwise), or any combination thereof.

Claim 1 was rejected as being obvious based on Gutta and DiMatteo. These references do not render claim 1 obvious for several reasons, including:

- **First**, Gutta and DiMatteo both use moving camera systems. Paragraph [0016] of Gutta describes that Gutta's cameras are mounted on stepper motors that allow the cameras to be rotated about their respective camera axes. Similarly, DiMatteo describes, at col. 3, lines 6-15, how the point angles of DiMatteo's cameras are

“servocontrolled” by respective servos. Because Gutta and DiMatteo each disclose using moving camera systems, a person having ordinary skill in the art would not be lead to build a system with non-moving image capturing devices, as required by claim 1, after having reviewed Gutta and DiMatteo. Indeed, Gutta and DiMatteo teach away from the invention of claim 1 because they both require moving camera systems.

- **Second**, neither Gutta nor DiMatteo teach or suggest the surround-view image sequence generator of claim 1. The Office acknowledges that Gutta does not disclose this feature. See Office Action at § 5, p. 3. DiMatteo merely discloses a computer 21 that calculates the position and orientation of a platform 11. See DiMatteo at col. 3, lines 27-29 and Fig. 2. DiMatteo’s computer does not output video sequences based on images from the cameras. Because neither Gutta nor DiMatteo employ a surround-view image sequence generator that generates video sequences, a person having ordinary skill in the art would not be lead to build a system having such a surround-view image sequence generator, as required by claim 1, after having reviewed Gutta and DiMatteo. Indeed, Gutta and DiMatteo teach away from the invention of claim 1 because they do not have such a surround-view image sequence generator.

The other reference cited in the Office Action, Foote, is directed to a system comprising a fixed (i.e., non-moving) camera array that is capable of zooming and panning to any selected area within a scene. Foote, however, does not disclose a number of such arrays situated around the scene or a surround-view image sequence generator that generates video sequences from the arrays.

For at least these reasons, applicants submit that claim 1 and its dependent claims (i.e., claims 2-17) are not obvious in view of the references cited in the Office

Action. For analogous reasons, applicants submit that independent claims 18, 27, and 33, as well as their respective dependent claims, are not obvious in view of the references cited in the Office Action.

Applicants reserve their right to swear behind Gutta as a prior art reference.

Applicants have also added new claims 37-42. Support for the new claims may be found throughout the application as filed. The new claims are nonobvious in view of the references cited in the Office Action for the reasons set forth above.


CONCLUSION

Applicants respectfully submit that all of the claims presented in the present application, as either amended or initially presented in this response, are in condition for allowance. Applicants' present Amendment should not in any way be taken as acquiescence to any of the specific assertions, statements, etc., presented in the Office Action not explicitly addressed herein. Applicants reserve the right to address specifically all such assertions and statements in subsequent responses.

Applicants have made a diligent effort to properly respond to the Office Action and believe that the claims are in condition for allowance. If the Examiner has any remaining concerns, the Examiner is invited to contact the undersigned at the telephone number set forth below so that such concerns may be expeditiously addressed

Respectfully submitted,

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